

9/8/05

updated search

AB The invention provides a method of screening a substance for the ability to affect the formation of a retinoid X receptor (RXR) homodimer comprising combining the substance and a solution containing RXR receptors and determining the presence of homodimer formation. The screening method can be used to determine compds. which selectively activate homodimer formation and heterodimer formation. Also provided is a method of screening a substance for an effect on a RXR receptor homodimer's ability to bind DNA comprising combining the substance with the homodimer and determining the effect of the compound on the homodimer's ability to bind DNA. Finally, the invention provides methods of activating RXR receptor homodimer formation. Bridged bicyclic aromatic compds. are provided. These compds. are useful for modulating gene expression of retinoic acid receptors, vitamin D receptors and thyroid receptors. Pharmaceutical compns. and methods for modulating gene expression are provided as well. Retinoids were identified that specifically induce RXR homodimer formation and activate RXR homodimers on specific genetic response elements but not RAR/RXR heterodimers. These retinoids allow the specific activation of RXR-selective response pathways, while not inducing RAR-dependent response pathways. One of these compds., SR11237 (I), was prepared from Me 4-[(5,6,7,8-tetrahydro-5,5,8,8,-tetramethyl-2-naphthalenyl)carbonyl]benzoate (preparation given).

AN 1994:526151 CAPLUS

DN 121:126151

TI RXR receptor homodimer formation and bridged bicyclic aromatic compounds and their use in modulating gene expression and screening modulating compounds

IN Pfahl, Magnus; Zhang, Xiao Kun; Lehmann, Jurgen M.; Dawson, Marcia I.; Cameron, James F.; Hobbs, Peter D.; Jong, Ling

PA La Jolla Cancer Research Foundation, USA; SRI International

SO PCT Int. Appl., 102 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9412880	A2	19940609	WO 1993-US11492	19931124 <--
	WO 9412880	A3	19940929		
	W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BE, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5466861	A	19951114	US 1992-982305	19921125
	US 5552271	A	19960903	US 1992-982174	19921125
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	AU 700706	B2	19990114		
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	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL				
	JP 08506323	T2	19960809	JP 1994-513405	19931124
	BR 9307528	A	19990831	BR 1993-7528	19931124
	US 5837725	A	19981117	US 1995-448991	19950524
PRAI	US 1992-982174	A	19921125		
	US 1992-982305	A	19921125		
	US 1992-901719	B2	19920616		
	WO 1993-US11492	W	19931124		
OS	CASREACT 121:126151; MARPAT 121:126151				

08141496

9/8/05

IT 153559-48-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

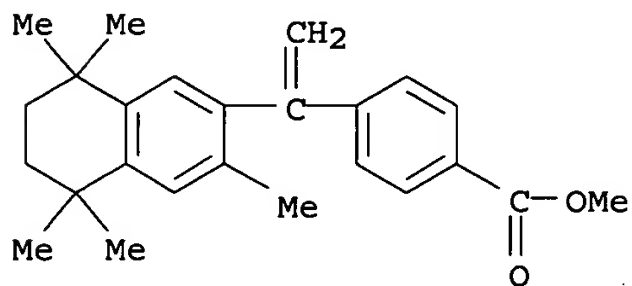
(preparation and reaction of, in preparation of compound affecting retinoid

X

receptor homodimer formation)

RN 153559-48-9 CAPLUS

CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)ethenyl]-, methyl ester (9CI) (CA INDEX NAME)



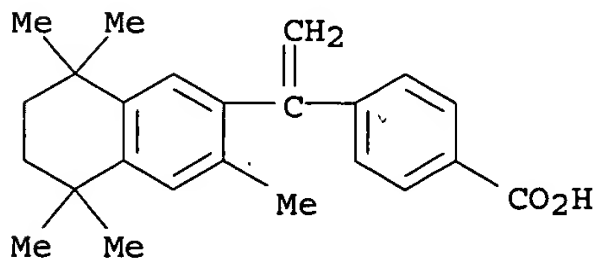
IT 153559-49-0P

RL: PREP (Preparation)

(preparation of, retinoid X receptor homodimer formation and binding to
genetic response element in relation to)

RN 153559-49-0 CAPLUS

CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)ethenyl]- (9CI) (CA INDEX NAME)



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NEWS	11	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
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NEWS	16	APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/CAPLUS
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NEWS	30	AUG 30	CASREACT - Enhanced with displayable reaction conditions

NEWS EXPRESS JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),

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AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005

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=> file registry

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STRUCTURE FILE UPDATES: 7 SEP 2005 HIGHEST RN 862646-13-7

DICTIONARY FILE UPDATES: 7 SEP 2005 HIGHEST RN 862646-13-7

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* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

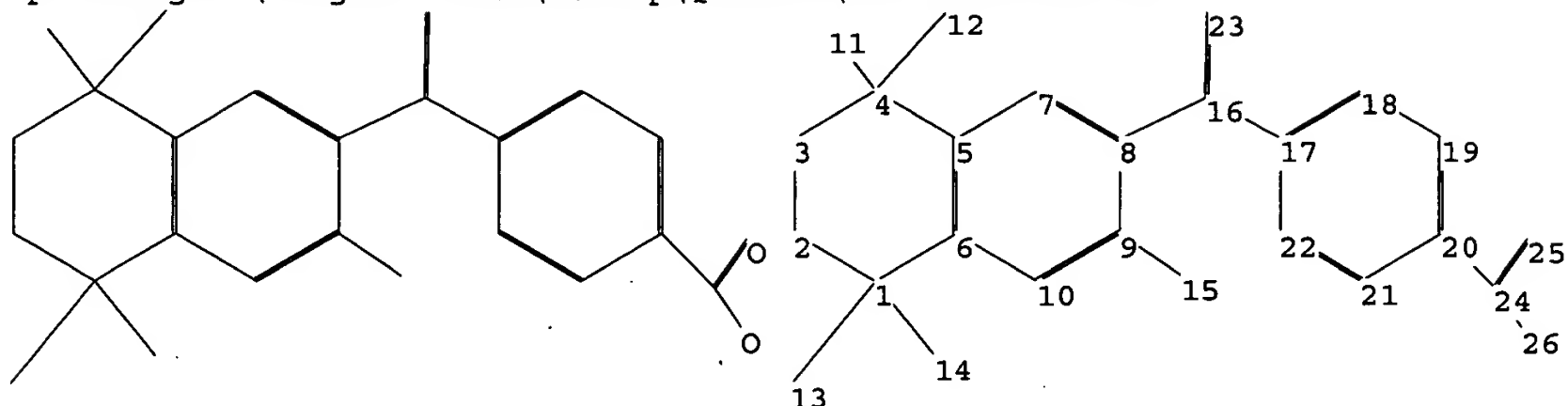
<http://www.cas.org/ONLINE/DBSS/registryss.html>

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9/8/05

=>

Uploading C:\Program Files\Stnexp\Queries\Paul08141496.str



chain nodes :

11 12 13 14 15 16 23 24 25 26

ring nodes :

1 2 3 4 5 6 7 8 9 10 17 18 19 20 21 22

chain bonds :

1-13 1-14 4-11 4-12 8-16 9-15 16-17 16-23 20-24 24-25 24-26

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 17-18 17-22 18-19 19-20
20-21 21-22

exact/norm bonds :

24-25 24-26

exact bonds :

1-2 1-6 1-13 1-14 2-3 3-4 4-5 4-11 4-12 8-16 9-15 16-17 16-23 20-24

normalized bonds :

5-6 5-7 6-10 7-8 8-9 9-10 17-18 17-22 18-19 19-20 20-21 21-22

isolated ring systems :

containing 1 : 17 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:Atom 18:Atom

19:Atom 20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS 25:CLASS 26:CLASS

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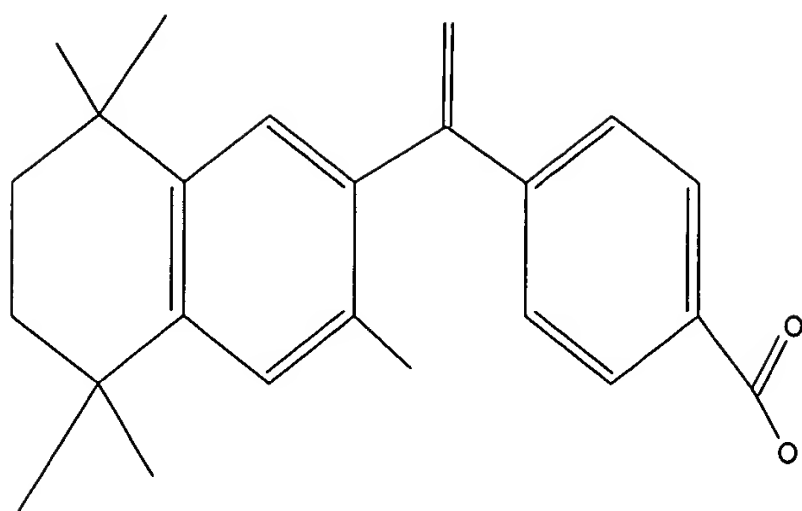
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L1 HAS NO ANSWERS

L1 STR

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Structure attributes must be viewed using STN Express query preparation.

=> s l1

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SAMPLE SCREEN SEARCH COMPLETED - 11 TO ITERATE

100.0% PROCESSED 11 ITERATIONS
SEARCH TIME: 00.00.01

3 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 22 TO 418
PROJECTED ANSWERS: 3 TO 163

L2 3 SEA SSS SAM L1

=> s l1 ful

FULL SEARCH INITIATED 11:52:02 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 243 TO ITERATE

100.0% PROCESSED 243 ITERATIONS
SEARCH TIME: 00.00.01

28 ANSWERS

L3 28 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

161.33

161.54

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L4 191 L3

=> s 14 and py<1993

14766766 PY<1993

L5 0 L4 AND PY<1993

=> s 14 and py<1995

16017204 PY<1995

L6 4 L4 AND PY<1995

=> d abs bib hitstr 1-4 16

L6 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AB The preparation and binding characteristics of a novel RXR (retinoid X receptor) selective tritiated radioligand is described. The results indicate that this probe may prove useful for further characterization of the RXR subtype of retinoid receptors.

AN 1995:267735 CAPLUS

DN 122:75576

TI Biochemical characterization of a novel RXR-selective, high specific activity radioligand

AU Mais, Dale E.; Berger, Elaine M.; Zhang, Lin; Boehm, Marcus F.

CS Department of Pharmacology, Ligand Pharmaceuticals, Incorporated, San Diego, CA, 92121, USA

SO Medicinal Chemistry Research (1994), 4(6), 406-13

CODEN: MCREEB; ISSN: 1054-2523

PB Birkhaeuser

DT Journal

LA English

IT 160436-02-2P

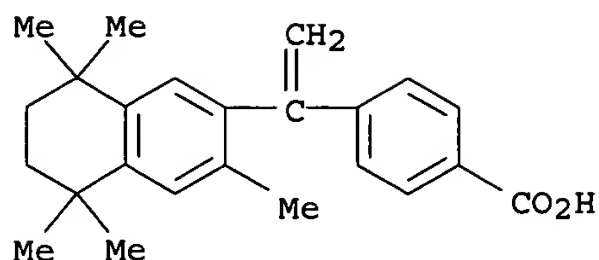
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(biochem. characterization of retinoid X receptor-selective, high specific activity radioligand)

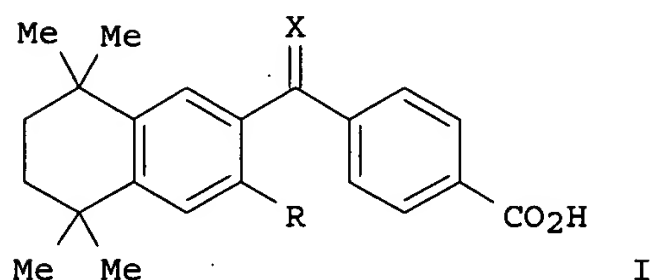
RN 160436-02-2 CAPLUS

CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)ethenyl]-, labeled with tritium (9CI) (CA INDEX NAME)

9/8/05



L6 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
GI



AB Two series of potent retinoid X receptor (RXR)-selective compds. were designed and synthesized based upon recent observation that (E)-4-[2-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthalenyl)-1-propenyl]benzoic acid binds and transactivates only the retinoic acid receptor (RAR) subtypes whereas its 3-Me derivative binds and transactivates both the RAR and RXR subfamilies. Functional groups in the 3-position of the tetrahydronaphthalenes I [R = H, alkyl, halo, OH, OMe; X = O, CH₂] results in compds. which elicit potent and selective activation of the RXR class. Such RXR-selective compds. offer pharmacol. tools for elucidating the biol. role of the individual retinoid receptors with which they interact. Activation profiles in cotransfection and competitive binding assays as well as mol. modeling calcns. demonstrate critical structural determinants that confer selectivity for members of the RXR subfamily. The most potent compound of these series, I [R = Me, X = CH₂], is the first RXR-selective retinoid (designated as LGD1069) to enter clin. trials for cancer indications.

AN 1994:656056 CAPLUS

DN 121:256056

TI Synthesis and Structure-Activity Relationships of Novel Retinoid X Receptor-Selective Retinoids

AU Boehm, Marcus F.; Zhang, Lin; Badea, Beth Ann; White, Steven K.; Mais, Dale E.; Berger, Elaine; Suto, Carla M.; Goldman, Mark E.; Heyman, Richard A.

CS Department of Medicinal Chemistry, Ligand Pharmaceuticals Inc., San Diego, CA, 92121, USA

SO Journal of Medicinal Chemistry (1994), 37(18), 2930-41
CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

IT 153559-48-9P 158499-06-0P 158499-07-1P
158499-08-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, in preparation of
tetrahydronaphthylethenylbenzoic

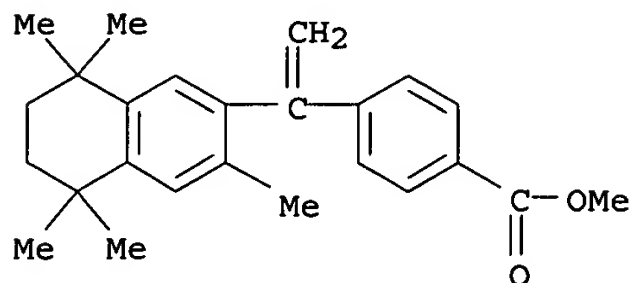
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acids)

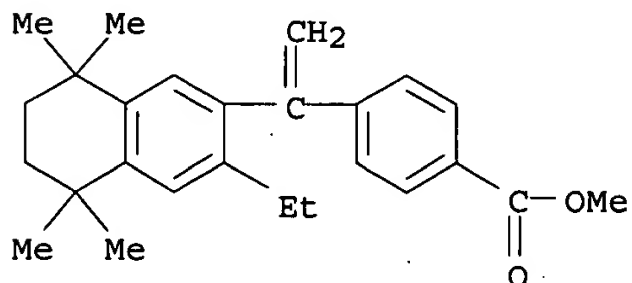
RN 153559-48-9 CAPLUS

CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)ethenyl]-, methyl ester (9CI) (CA INDEX NAME)



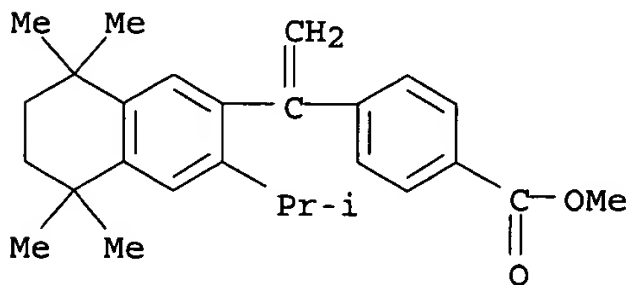
RN 158499-06-0 CAPLUS

CN Benzoic acid, 4-[1-(3-ethyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl)ethenyl]-, methyl ester (9CI) (CA INDEX NAME)



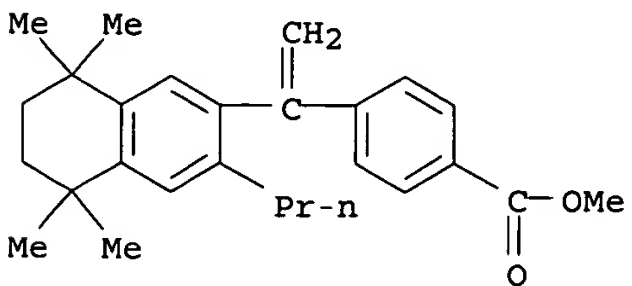
RN 158499-07-1 CAPLUS

CN Benzoic acid, 4-[1-[5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-3-(1-methylethyl)-2-naphthalenyl]ethenyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 158499-08-2 CAPLUS

CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-3-propyl-2-naphthalenyl)ethenyl]-, methyl ester (9CI) (CA INDEX NAME)



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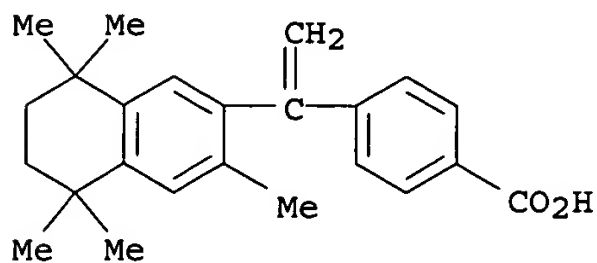
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IT 153559-49-0P 153559-56-9P 153559-59-2P
158499-03-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and retinoid receptor binding of)

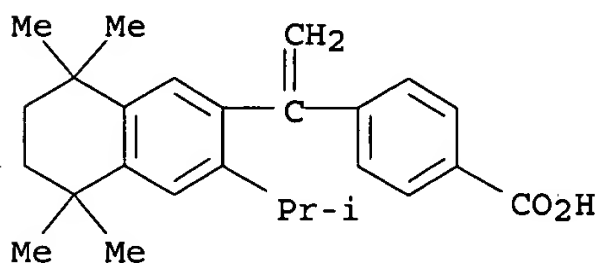
RN 153559-49-0 CAPLUS

CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)ethenyl]- (9CI) (CA INDEX NAME)



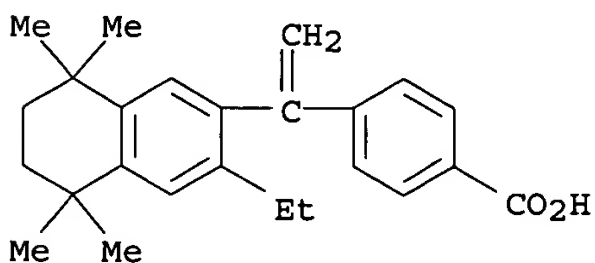
RN 153559-56-9 CAPLUS

CN Benzoic acid, 4-[1-[5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-3-(1-methylethyl)-2-naphthalenyl]ethenyl]- (9CI) (CA INDEX NAME)



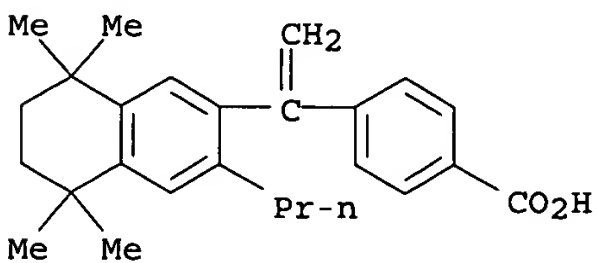
RN 153559-59-2 CAPLUS

CN Benzoic acid, 4-[1-(3-ethyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl)ethenyl]- (9CI) (CA INDEX NAME)



RN 158499-03-7 CAPLUS

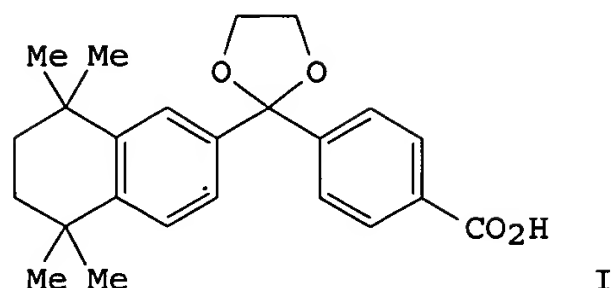
CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-3-propyl-2-naphthalenyl)ethenyl]- (9CI) (CA INDEX NAME)



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9/8/05

L6 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
GI



AB The invention provides a method of screening a substance for the ability to affect the formation of a retinoid X receptor (RXR) homodimer comprising combining the substance and a solution containing RXR receptors and determining the presence of homodimer formation. The screening method can be used to determine compds. which selectively activate homodimer formation and heterodimer formation. Also provided is a method of screening a substance for an effect on a RXR receptor homodimer's ability to bind DNA comprising combining the substance with the homodimer and determining the effect of the compound on the homodimer's ability to bind DNA. Finally, the invention provides methods of activating RXR receptor homodimer formation. Bridged bicyclic aromatic compds. are provided. These compds. are useful for modulating gene expression of retinoic acid receptors, vitamin D receptors and thyroid receptors. Pharmaceutical compns. and methods for modulating gene expression are provided as well. Retinoids were identified that specifically induce RXR homodimer formation and activate RXR homodimers on specific genetic response elements but not RAR/RXR heterodimers. These retinoids allow the specific activation of RXR-selective response pathways, while not inducing RAR-dependent response pathways. One of these compds., SR11237 (I), was prepared from Me 4-[(5,6,7,8-tetrahydro-5,5,8,8,-tetramethyl-2-naphthalenyl)carbonyl]benzoate (preparation given).

AN 1994:526151 CAPLUS

DN 121:126151

TI RXR receptor homodimer formation and bridged bicyclic aromatic compounds and their use in modulating gene expression and screening modulating compounds

IN Pfahl, Magnus; Zhang, Xiao Kun; Lehmann, Jurgen M.; Dawson, Marcia I.; Cameron, James F.; Hobbs, Peter D.; Jong, Ling

PA La Jolla Cancer Research Foundation, USA; SRI International

SO PCT Int. Appl., 102 pp.

CODEN: PIXXD2

DT Patent

LA English

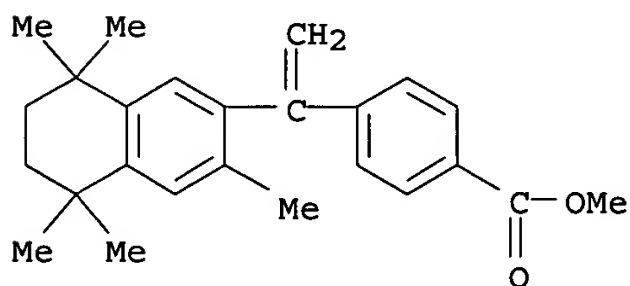
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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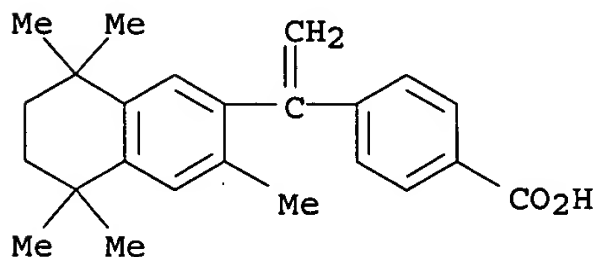
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AU 700706	B2	19990114		
EP 671005	A1	19950913	EP 1994-904805	19931124
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL				
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US 5837725	A	19981117	US 1995-448991	19950524
PRAI US 1992-982174	A	19921125		
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US 1992-901719	B2	19920616		
WO 1993-US11492	W	19931124		
OS CASREACT 121:126151; MARPAT 121:126151				
IT 153559-48-9P				
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)				
(preparation and reaction of, in preparation of compound affecting retinoid				
X	receptor homodimer formation)			
RN 153559-48-9	CAPLUS			
CN	Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)ethenyl]-, methyl ester (9CI) (CA INDEX NAME)			



IT 153559-49-0P
RL: PREP (Preparation)
(preparation of, retinoid X receptor homodimer formation and binding to genetic response element in relation to)

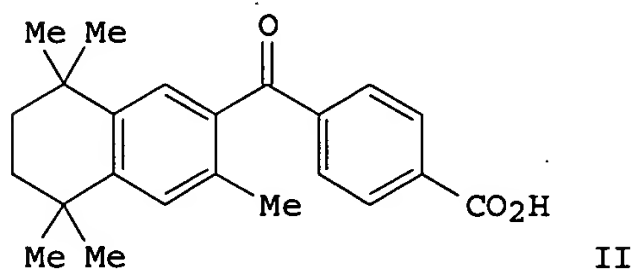
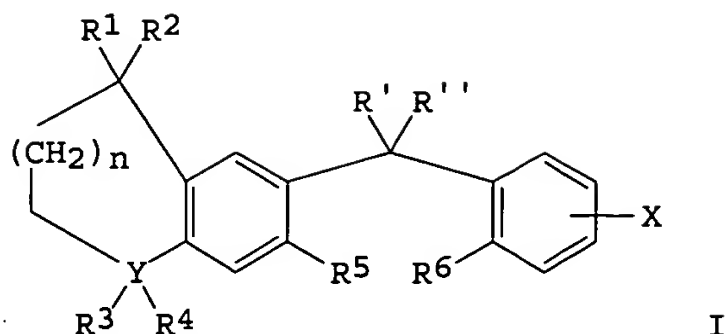
RN 153559-49-0 CAPLUS
CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)ethenyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
GI

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9/8/05



AB Ligands which selectively activate retinoid X receptors (RXR) in preference to retinoic acid receptors (RAR) are claimed. Claimed per se are several Markush structures, e.g., compds. I [R1, R2 = H, alkyl, acyl; Y = C, O, S, N, CH(OH), CO, SO, SO2, or a salt derivative; R3, R4 = H, alkyl, or is absent; R', R'' = H, alkyl, acyl, OH, alkoxy, thiol, thio ether, amino; or R'R'' = :O, :CH2, :S, :NOH, :NCN, CH2CH2, CH2O, etc.; R5, R6 = H, alkyl, halo, NO2, OH, alkoxy, SH, alkylthio, (di)(alkyl)amino, etc.; X = CO2H or derivs., CHO, tetrazolyl, PO3H2, SO3H, CH2OH, etc.], represented by 43 synthetic examples. Thus, acylation of 1,1,4,4,6-pentamethyl-1,2,3,4-tetrahydronaphthalene by mono-Me terephthalate using PCl5 and then AlCl3, and saponification of the ester product, gave title compound II. In a cotransfection assay, II activated RXR subtypes (α , β , γ) with efficacies of 130%, 52%, and 82%, resp. (vs. all-trans-retinoic acid as 100%), but had <2% to <4% efficacy for RAR subtypes. I synergistically increased the activities (e.g., antihyperproliferative) of RAR-active ligands, as well as other hormonal systems (e.g., clofibrate and 1,25-dihydroxyvitamin D activities).

AN 1994:217004 CAPLUS

DN 120:217004

TI Compounds (naphthalene and indane derivatives) having selectivity for retinoid X receptors

IN Boehm, Marcus F.; Heyman, Richard A.; Zhi, Lin

PA Ligand Pharmaceuticals Inc., USA

SO PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

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9/8/05

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WO 1993-US3944	A	19930422
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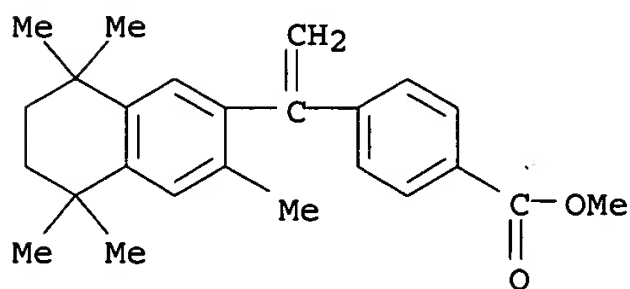
OS MARPAT 120:217004

IT 153559-48-9P 153559-49-0P 153559-56-9P
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RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as retinoid receptor ligand)

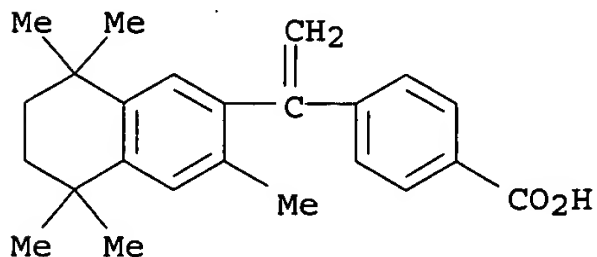
RN 153559-48-9 CAPLUS

CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)ethenyl]-, methyl ester (9CI) (CA INDEX NAME)



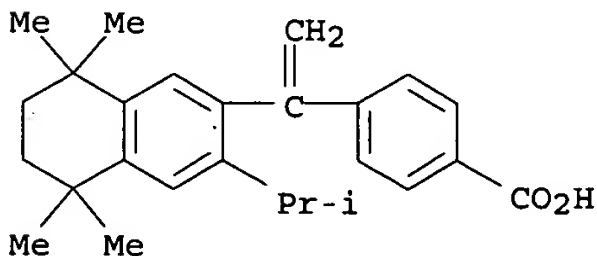
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CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)ethenyl]- (9CI) (CA INDEX NAME)



RN 153559-56-9 CAPLUS

CN Benzoic acid, 4-[1-[5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-3-(1-methylethyl)-2-naphthalenyl]ethenyl]- (9CI) (CA INDEX NAME)



RN 153559-59-2 CAPLUS

CN Benzoic acid, 4-[1-(3-ethyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl)ethenyl]- (9CI) (CA INDEX NAME)

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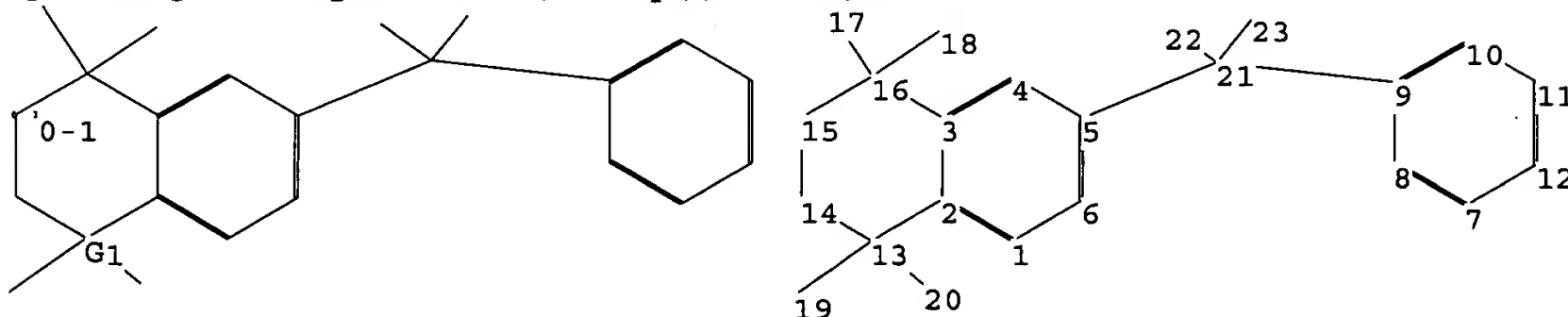
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* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
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Structure search iteration limits have been increased. See HELP SLIMITS for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

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ring nodes :

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ring/chain nodes :

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9/8/05

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FILE LAST UPDATED: 7 Sep 2005 (20050907/ED)

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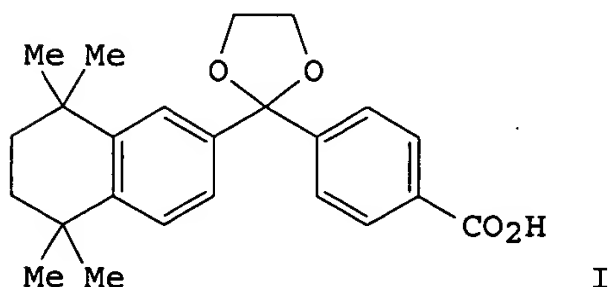
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L12 2 L10 AND PY<1995

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L12 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
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AB The invention provides a method of screening a substance for the ability to affect the formation of a retinoid X receptor (RXR) homodimer comprising combining the substance and a solution containing RXR receptors and determining the presence of homodimer formation. The screening method can be used to determine compds. which selectively activate homodimer formation and heterodimer formation. Also provided is a method of screening a substance for an effect on a RXR receptor homodimer's ability to bind DNA comprising

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combining the substance with the homodimer and determining the effect of the compound on the homodimer's ability to bind DNA. Finally, the invention provides methods of activating RXR receptor homodimer formation. Bridged bicyclic aromatic compds. are provided. These compds. are useful for modulating gene expression of retinoic acid receptors, vitamin D receptors and thyroid receptors. Pharmaceutical compns. and methods for modulating gene expression are provided as well. Retinoids were identified that specifically induce RXR homodimer formation and activate RXR homodimers on specific genetic response elements but not RAR/RXR heterodimers. These retinoids allow the specific activation of RXR-selective response pathways, while not inducing RAR-dependent response pathways. One of these compds., SR11237 (I), was prepared from Me 4-[(5,6,7,8-tetrahydro-5,5,8,8,-tetramethyl-2-naphthalenyl)carbonyl]benzoate (preparation given).

AN 1994:526151 CAPLUS

DN 121:126151

TI RXR receptor homodimer formation and bridged bicyclic aromatic compounds and their use in modulating gene expression and screening modulating compounds

IN Pfahl, Magnus; Zhang, Xiao Kun; Lehmann, Jurgen M.; Dawson, Marcia I.; Cameron, James F.; Hobbs, Peter D.; Jong, Ling

PA La Jolla Cancer Research Foundation, USA; SRI International

SO PCT Int. Appl., 102 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

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OS CASREACT 121:126151; MARPAT 121:126151

IT 156910-41-7P

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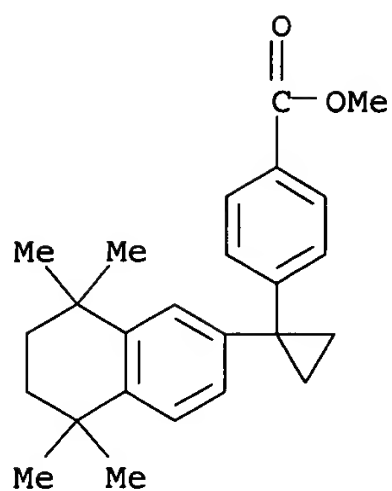
receptor homodimer formation)

RN 156910-41-7 CAPLUS

CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl)cyclopropyl]-, methyl ester (9CI) (CA INDEX NAME)

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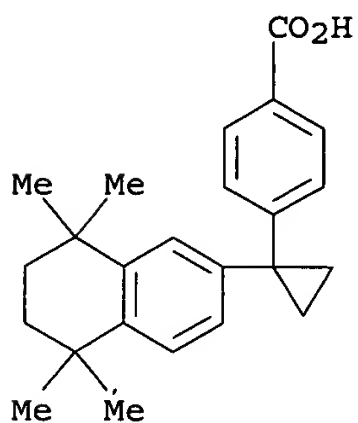
IT 156910-31-5P

RL: PREP (Preparation)

(preparation of, retinoid X receptor homodimer formation and binding to genetic response element in relation to)

RN 156910-31-5 CAPLUS

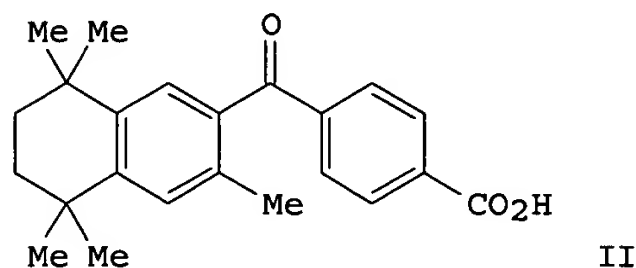
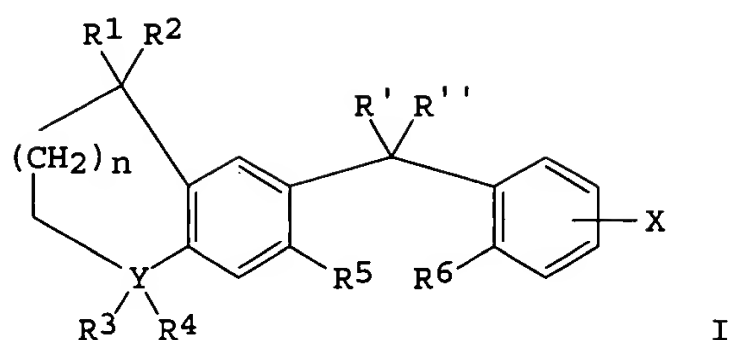
CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl)cyclopropyl]- (9CI) (CA INDEX NAME)



L12 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
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9/8/05



AB Ligands which selectively activate retinoid X receptors (RXR) in preference to retinoic acid receptors (RAR) are claimed. Claimed per se are several Markush structures, e.g., compds. I [R1, R2 = H, alkyl, acyl; Y = C, O, S, N, CH(OH), CO, SO, SO2, or a salt derivative; R3, R4 = H, alkyl, or is absent; R', R'' = H, alkyl, acyl, OH, alkoxy, thiol, thio ether, amino; or R'R'' = :O, :CH2, :S, :NOH, :NCN, CH2CH2, CH2O, etc.; R5, R6 = H, alkyl, halo, NO2, OH, alkoxy, SH, alkylthio, (di)(alkyl)amino, etc.; X = CO2H or derivs., CHO, tetrazolyl, PO3H2, SO3H, CH2OH, etc.], represented by 43 synthetic examples. Thus, acylation of 1,1,4,4,6-pentamethyl-1,2,3,4-tetrahydronaphthalene by mono-Me terephthalate using PCl5 and then AlCl3, and saponification of the ester product, gave title compound II. In a cotransfection assay, II activated RXR subtypes (α , β , γ) with efficacies of 130%, 52%, and 82%, resp. (vs. all-trans-retinoic acid as 100%), but had <2% to <4% efficacy for RAR subtypes. I synergistically increased the activities (e.g., antihyperproliferative) of RAR-active ligands, as well as other hormonal systems (e.g., clofibrate and 1,25-dihydroxyvitamin D activities).

AN 1994:217004 CAPLUS

DN 120:217004

TI Compounds (naphthalene and indane derivatives) having selectivity for retinoid X receptors

IN Boehm, Marcus F.; Heyman, Richard A.; Zhi, Lin

PA Ligand Pharmaceuticals Inc., USA

SO PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

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US 6610883	B1	20030826	US 1998-115615	19980713
US 6320074	B1	20011120	US 1998-179674	19981027
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EP 1993-910835	A3	19930422
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US 1993-141246	A1	19931022
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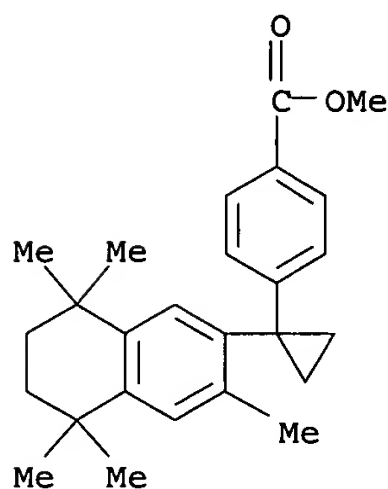
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IT 153559-88-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for retinoid receptor ligand)

RN 153559-88-7 CAPLUS

CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)cyclopropyl]-, methyl ester (9CI) (CA INDEX NAME)

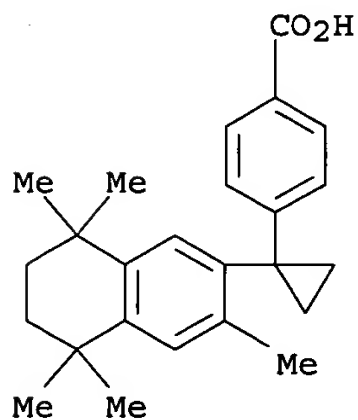


IT 153559-62-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as retinoid receptor ligand)

RN 153559-62-7 CAPLUS

CN Benzoic acid, 4-[1-(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)cyclopropyl]- (9CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

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9/8/05

FULL ESTIMATED COST	14.56	363.58
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-1.46	-4.38

STN INTERNATIONAL LOGOFF AT 12:07:31 ON 08 SEP 2005

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